To: Chapin, Thomas[tchapin@usgs.gov]; Todd, Andrew[atodd@usgs.gov]
Cc: Hoefen, Todd[thoefen@usgs.gov]; Holloway, JoAnn[jholloway@usgs.gov]; Morrison, Jean[jmorrison@usgs.gov]; Wolf, Ruth[rwolf@usgs.gov]; Ridley, Trude[tking@usgs.gov]; Plumlee, Geoffrey[gplumlee@usgs.gov]; Richard Wanty[rwanty@usgs.gov]; Kathleen Smith[ksmith@usgs.gov]; Michael Powers[mhpowers@usgs.gov]; Katie Walton-Day[kwaltond@usgs.gov]; Robert Horton[rhorton@usgs.gov]; Robert Runkel[runkel@usgs.gov]; Stevenson, Peter[Stevenson.Peter@epa.gov]
From: Wall, Dan
Sent: Sat 8/8/2015 2:14:04 PM
Subject: RE: USGS minisipper deployment

Hi Thomas.

We are on board with the locations and would like to mimic the resolution you and I have done in the past (daily samples composited every 2 hours is my recollection). What gets analyzed and how long they are deployed will be determined later.

We will be coordinating grab samples at these locations-frequency to be determined.

You are correct that the nose of the comet appears to have past but Durango (visually) water is still discolored. Substantial rains have re-stained water in Silverton last night according to field crews and we are anticipating another pulse in Durango. Rain is our friend though.

Thomas-things are a little quieter today (so far) if you would like to discuss this further.

From: Chapin, Thomas [mailto:tchapin@usgs.gov]
Sent: Saturday, August 08, 2015 1:27 AM
To: Todd, Andrew; Wall, Dan
Cc: Hoefen, Todd; Holloway, JoAnn; Morrison, Jean; Wolf, Ruth; Ridley, Trude; Plumlee, Geoffrey; Richard Wanty; Kathleen Smith; Michael Powers; Katie Walton-Day; Robert Horton; Robert Runkel
Subject: Re: Andrew Todd available for a limited time

Hi Folks,

I've been talking with Dan Wall and others at EPA. Dan's been doing the ecotoxicity studies on the upper Animas and I was doing MiniSipper work with him for the past 2+ years, ending in April, 2015. Dan and I will talk more this weekend about what EPA would like USGS to do with MiniSipper work. I have had 3 conversations with Dan this afternoon, each lasting less than a minute as Dan was called away to deal with some EPA crisis.

To bring everyone up to speed, I will be heading down to Silverton next Tuesday to deploy MiniSippers. People I have talked to in Silverton say the banks of Cement Creek and the upper Animas are coated with a gooey orange precipitate. While the initial blowout pulse is long gone, I would expect that there will be many more toxic metal pulses as rain events and eventually spring snowmelt runoff mobilize sediments and metals.

Rob Runkel said he will also be heading down to Silverton on Tuesday and I believe he will be independently collecting sediment samples and water quality samples at locations he has selected

I will be coordinating with Dan Wall and other EPA scientists on MiniSipper deployment locations and sampling resolution. Initial discussions with Dan have identified 4-5 MiniSipper sites. The MiniSipper sites may change depending on what EPA wants so this list is a starting point.

1. Cement Creek at the USGS gage, just upstream of confluence with Animas. This sipper may be moved to the actual blow out site at the Gold King portal

2. A-68, Animas river upstream of Cement Creek in Silverton, should be unaffected by blowout

3. A-72, Animas river downstream of Cement Creek, downstream of Silverton where USGS gage is located

4. Bakers Bridge, about 13 miles upstream of Durango, an established EPA sampling site, below the Animas Canyon

5. Durango municipal water intake, which I'm sure is currently turned off.

One of the concerns that EPA has is that the MiniSippers are designed for long-term deployments, which results in sample analysis many months after sample collection. In addition to long-term, high-resolution MiniSipper sampling, EPA also needs quick turn-around water

quality sampling and analysis to keep the public informed. I will be talking to Dan about other sampling options for faster sample turn-around (Iscos, onsite EPA-USGS-BLM-USFS grab samples, faster MiniSipper turn-arounds, etc).

I will also be deploying STICs (low-cost conductivity-temperature loggers) at each MiniSipper site. More STICs are available for conductivity monitoring of other locations.

Katie is procuring sondes for pH, temp, conductivity and possibly DO logging. Some of these sondes will be co-located with MiniSippers

If I have left anything out, please chime in.

On Fri, Aug 7, 2015 at 11:52 PM, Todd, Andrew <atodd@usgs.gov> wrote:

> Sorry I wasn't reachable, but Ben and I were deep in the Sangres doing cutthroat trout research (we are actually out early).
>
> I'll be around this weekend, and in to do some paperwork on Monday, but then on AL for the rest of the week.
>
> Feel free to give me a call. 720-217-4120.
>
> On Fri, Aug 7, 2015 at 11:47 PM, Hoefen, Todd <thoefen@usgs.gov> wrote:
>
> > Hey all,

Unfortunately for Andrew I caught him on-line tonight and have added him to this e-mail chain. He mentioned that he would be available for a limited time this weekend. I was going to give him a call tomorrow and fill him in on the details of our meeting today but with the little information I gave him he didn't have a very good outlook for the trout. If you have questions for him I would send them now.

Todd

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Todd M. Hoefen

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Thanks,

Thomas

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